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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,854	03/30/2004	Sang-hyun Han	1572.1275	2349

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STAAS & HALSEY LLP  
SUITE 700  
1201 NEW YORK AVENUE, N.W.  
WASHINGTON, DC 20005

EXAMINER
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LE, HUYEN D

ART UNIT	PAPER NUMBER
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2615

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/20/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/811,854

Applicant(s)

HAN ET AL.

Examiner

HUYEN D. LE

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-23, 26 and 27 is/are allowed.
- 6) ☒ Claim(s) 1, 8-10, 24 and 25 is/are rejected.
- 7) ☒ Claim(s) 2-7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 24 is rejected under 35 U.S.C. 102(b) as being anticipated by Grodinsky (U.S. patent 3,778,551).

Grodinsky teaches a process of assembling a speaker apparatus that has a speaker (12) and a circuit (13). The process comprises opening (18, 19 or 20) an air inlet into the speaker apparatus (col. 2, lines 3-8, and lines 40-47), opening (16, 25, 28) an air outlet from the speaker apparatus and arranging an air path through the speaker apparatus as claimed (figures 1, 2 and see col. 2, lines 48-65 and col. 3, lines 5-14).

3. Claims 1, 8-10 and 24 is rejected under 35 U.S.C. 102(b) as being anticipated by Jordan (U.S. patent 5,097,513).

Regarding claims 1 and 8, Jordan teaches a speaker apparatus (figure 1) that has a speaker (24) and a circuit (the amplify circuit 26, 29, 50, 51). As broadly claimed, the apparatus comprises a speaker box (16) to enclose the back of the speaker, a casing (the casing of the reflex duct 32) to communicate with an outside to dissipate heat from the circuit, and a duct (38) to emit back sound from the speaker (figure 1).

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Regarding claims 9, Jordan teaches the speaker (24) that is a bass speaker.

Regarding claim 10, as shown in figure 1, the casing (32) has a shape of a cylinder, and the speaker box (16) has a shape of a cylinder having an opening as claimed.

Regarding claim 24, Jordan teaches a process of assembling a speaker apparatus (16 and 32, figure 1) that has a speaker (24) and a circuit (26, 28, 29, 50, 51). The process comprises opening (see the open end in the plane 22 for receiving the speaker 24 in figure 1) an air inlet into the speaker apparatus, opening (36, 38) an air outlet from the speaker apparatus at a top of the speaker apparatus, and arranging an air path through the speaker apparatus as claimed (figure 1).

4. Claims 24-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Kuratani et al. (U.S. patent 6,956,956).

Regarding claim 24, Kuratani teaches a process of assembling a speaker apparatus (12, 112) that has a speaker (12, 112) and a circuit (30, 102, 131, 132, 133, 136). The process comprises opening an air inlet into the speaker apparatus, opening an air outlet from the speaker apparatus at a top of the speaker apparatus, and arranging an air path through the speaker apparatus as claimed (figures 3 and 6).

Regarding claim 25, Kuratani shows a speaker box (11, 111) and a duct (15, 115) having a longitudinal axis as claimed (figures 3 and 6).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saeki (U.S. patent 5,189,706).

Regarding claim 1, Saeki teaches a speaker apparatus including a speaker (3). The speaker apparatus comprises a speaker box (1) having an opening (5 or an opening for receiving the speaker 3), a casing (2) to communicate with an outside to dissipate heat from the driver or the magnetic circuit of the speaker (3), and a duct (6) to emit back sound of the speaker.

Saeki does not specifically disclose a circuit to operate the speaker (3). However, it is known in the art to provide a coil and a magnetic circuit for driving a diaphragm in a loudspeaker.

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Therefore, it would have been obvious to one skilled in the art to provide any type of loudspeaker (3) for the Saeki system such as an electrodynamic loudspeaker that comprises a magnetic circuit for driving the diaphragm in the speaker for an alternate choice.

***Allowable Subject Matter***

7. Claims 11-23 and 26-27 have been allowed.
8. Claims 2-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

Applicant's arguments with respect to claims 1, 8-10 and 24-25 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sakurai et al. (U.S. patent 4,210,778) teaches a loudspeaker with a heat pipe.

Schindler (U.S. patent 5,771,302) teaches a loudspeaker box that has a speaker (23) and an amplifier unit (24).

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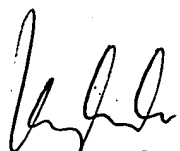
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUYEN D. LE whose telephone number is (571) 272-7502. The examiner can normally be reached on 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, SINH TRAN can be reached on (571) 272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



HL  
April 14, 2007



HUYEN LE  
PRIMARY EXAMINER